



AMENDMENTS TO THE CLAIMS

This listing of Claims shall replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A data processing pipeline comprising:
a first circuit, the first circuit classifying a data set received based on at least a criterion, based on a classification, the first circuit selecting a process mode to process the data set to minimize power consumption without sacrificing quality and performance; and
a second circuit coupled to the first circuit ~~coupled to the first circuit~~, the second circuit processing data received from the first circuit.
2. (Currently Amended) The data processing pipeline of claim 1, wherein the second circuit ~~comprising~~ comprises:
A first data processing circuit, the first data processing circuit processing data having a first classification in a low precision processing mode; and
a second data processing circuit, the second data processing circuit processing data having a second classification in a high precision processing mode.
3. (Currently Amended) The data processing pipeline of claim 2, wherein the second circuit further ~~comprising~~ comprises:

A third data processing circuit coupled to the first data processing circuit, the third data processing circuit processing data having a first classification received from the first data processing circuit; and

A fourth data processing circuit coupled to the second data processing circuit, the fourth data processing circuit processing data having a second classification received from the second data processing circuit.

4. (Currently Amended) The data processing pipeline of claim 2, wherein the second circuit further ~~comprising~~ comprises a third data processing circuit coupled to the first data processing circuit and the second data processing circuit, the third data processing circuit performing data processing on all data regardless of classification.

5. (Currently Amended) The data processing pipeline of claim 1, wherein the second circuit ~~comprising~~ comprises a configurable data processing circuit, the configurable data processing circuit is configured based on a first classification to process data in a low precision processing mode, the configurable data processing circuit is configured based on a second classification to process data in a high precision processing mode.

6. (Currently Amended) The data processing pipeline of claim 5, wherein the second circuit further ~~comprising~~ comprises a third data processing circuit coupled to the configurable data processing circuit, the third data processing circuit performing data processing on all data regardless of classification.

7. (Original) The data processing pipeline of claim 6 further comprising a user interface coupled to the first circuit, the user interface communicating input information by a user to the first circuit to configure the configurable data processing circuit to operate in a desired precision operating mode.
8. (Original) The data processing pipeline of claim 7, wherein the desired precision mode selected by the user overrides the precision mode selected by the first circuit.
9. (Original) The data processing pipeline of claim 6 further comprising a power monitor coupled to the first circuit, the power monitor determining a power level needed to ensure continuing operation of a portable hand-held device until a conclusion of an actively running application and selecting an appropriate precision operating mode, the power monitor communicating the determined precision operating mode to the first circuit to configure the configurable data processing circuit to operate in the selected precision operating mode.
10. (Original) The data processing pipeline of claim 9, wherein the selected precision mode overrides the precision mode selected by the first circuit.
11. (Original) The data processing pipeline of claim 4 further comprising a user interface coupled to the first circuit, the user interface communicating input information by a user to the first circuit to configure the configurable data processing circuit to operate in a desired precision operating mode.

12. (Original) The data processing pipeline of claim 11, wherein the desired precision mode selected by the user overrides the precision mode selected by the first circuit.

13. (Original) The data processing pipeline of claim 4 further comprising a power monitor coupled to the first circuit, the power monitor determining a power level needed to ensure continuing operation of a portable hand-held device until a conclusion of an actively running application and selecting an appropriate precision operating mode, the power monitor communicating the determined precision operating mode to the first circuit to configure the configurable data processing circuit to operate in the selected precision operating mode.

14. (Original) The data processing pipeline of claim 13, wherein the power monitor makes the determination by comparing an indicator of available power with an indicator of remaining operating time of the actively running application.

15-56. (Cancelled) (Restriction)

57. (Original) A method for processing data comprising:
classifying a data set based on at least a criterion; and
based on the classification, selecting a processing mode to process the data set to minimize power consumption without sacrificing quality and performance.

58. (Original) A method for processing 3D graphics comprising:

classifying a primitive based on its size and other characteristics; and
based on the classification, selecting a processing mode to compute
setup equations for the primitive to minimize power consumption without
sacrificing quality and performance.

59. (Currently Amended) The method of claim 58, wherein the primitive is
classified as either small and well-behaved, large, or misbehaved.

60. (Original) The method of claim 58, wherein classification criteria for
the other characteristics include texture, width, and depth.

61. (Currently Amended) The method of Claim 60, wherein a low precision
processing mode is used for a primitive classified as small and well-behaved
and a high precision processing mode is used for a primitive classified as
large or misbehaved.

62. (Original) The method of claim 61, further comprising:
receiving input information from a user; and
selecting a desired precision operating mode based on the input
information.

63. (Original) The method of claim 62, wherein the desired precision mode
selected by the user overrides the precision mode selected by the primitive
classification step.

64. (Currently Amended) The method of claim 61 further comprising;

determining a power level needed to ensure continuing operation of a portable hand-held device until a conclusion of an actively running application; and

selecting an appropriate precision operating mode based on the power level determined.

65. (Original) The method of claim 64, wherein the determination is carried out by comparing an indicator of available power with an indicator of remaining operating time of the actively running application.

66. (Original) The method claim 65, wherein the selected precision mode overrides the precision mode selected by the primitive classification step.